183560

Ex Parte Meeting

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Docket NHTSA-2000-8011 -10

On February 22, 2001, NHTSA met with representatives of Michelin concerning the impending rulemaking on endurance and resistance standards of tires and tire pressure monitoring systems required by the recently-enacted Transportation Recall Enhancement Accountability and Documentation (TREAD) Act.

NHTSA was represented by Joe Scott, Larry Blincoe, Steve Peirce, Joseph Kanianthra, August Burgett, Steve Wood, Riley Garrott, Ray Owings, Mike Monk, Art Carter, Chris Lash, George Soodoo, and Nancy Bell. Michelin was represented by Steve Padula, Prashant Prabhu, Patrick Raher, and Michael Fanning.

Michelin representatives presented and discussed the highlights of its Endurance Certification Test proposal and its Tire Pressure Monitoring System (TPMS) proposal. Michelin's Endurance Certification Test proposal has been submitted to the above-mentioned docket and Michelin's TPMS proposal has been submitted to docket NHTSA-2000-8572.

Endurance Certification Test Proposal

Agenda

- Shortcomings with Existing Standards
- Endurance Certification Test Proposal
- Next Steps

Shortcomings With Existing Standards

- Current Endurance Test inappropriate for Long Term Durability
- Need An Endurance Test For Long Term Durability

ENDURANCE TEST

- **Belt Edge Stress**
- **Long Term Cyclic Fatigue**
- **Compound Evolution**
  - **Operating Temperature**
  - **Compound Type**
  - **Oxygen at Belt Edge**
  - **Antioxidants**
  - **Chemical Migration**

Shortcomings With Existing Standards

- Recommendation to Replace Current Regulatory High Speed Test with ISO10191 Addresses High Speed Capability

HIGH SPEED TEST

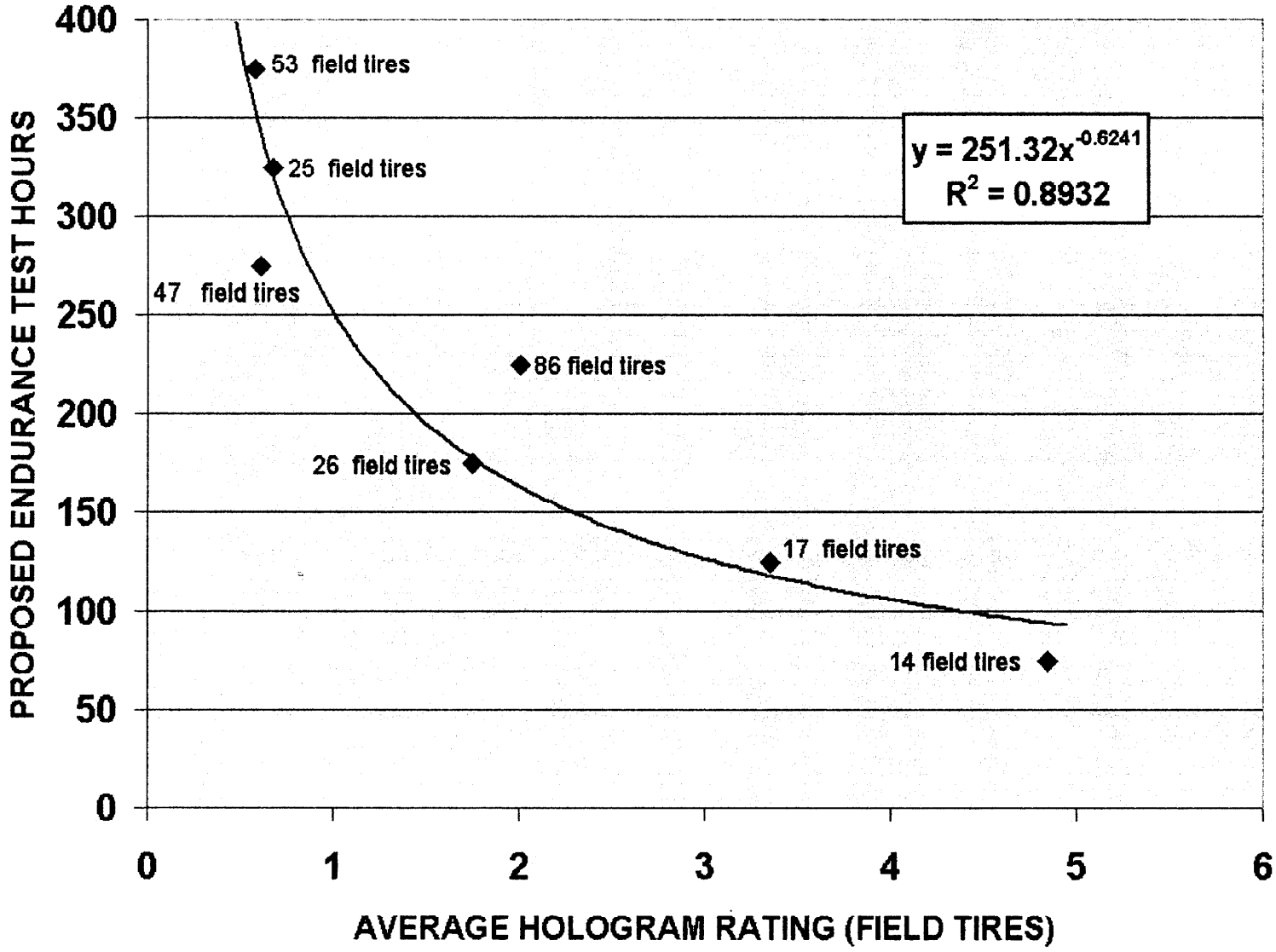
- **Heat Generation**
- **Heat Dissipation**
- **Initial Compound Strength at High Temperature**
- **Critical Speed**
- **Tread Pattern**
- **Centrifugation behavior**
  - **Belt Angle**
  - **Bead Stiffness**
  - **……..**

Endurance Certification Test Proposal

- Objective: Test the longer term endurance performance of Passenger & LT tires
- General Test Description: (67" Roadwheel)

	Metric Pass Car		Light Truck			
			Load Range			
	Standard Load	Extra Load	B	C	D	E
Test Temperature (^{o}F)	100 ∓ 5		100 ∓ 5			
Speed (mph)	60		60			
Filling Gas	50%O_2/50%N_2		50%O_2/50%N_2			
Load (lbs)- % Max Single	111		142	112	98	92
Initial Pressure(psi)- Regulated	40	46	57		65	80

FIELD vs. PROPOSED ENDURANCE TEST DATA



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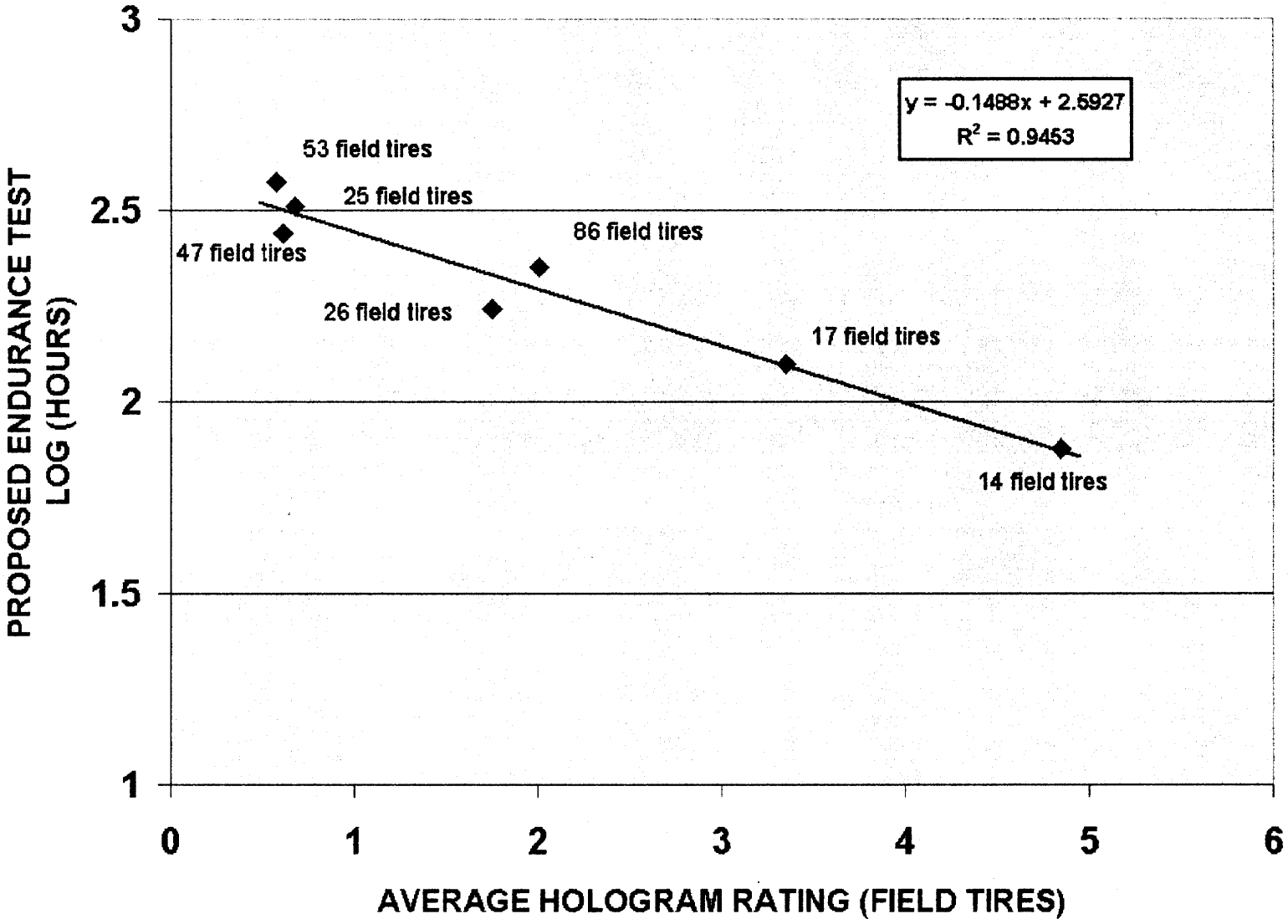
FIELD vs. PROPOSED ENDURANCE TEST DATA



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Next Steps:
Conduct Industry-Wide Study

- Generate Endurance Certification Test Data for spectrum of tires (sizes, applications, constructions, …)

- Define Endurance Certification Test Procedures & Classification
- Define How to Communicate Endurance Information to Consumer

Next Steps:
Go Beyond Test Development

- Address Root Causes:
  - Reduce Heat Build Up
    - Fuel-efficient Tread compounds
    - Fuel Efficiency criteria for Replacement Market tires
  - Reduce Load per Tire
    - Define Maximum allowable percent of rated load
  - Reduce compound evolution
    - Require Nitrogen inflation